AMENDMENTS TO THE CLAIMS

Please amend claims 1, 5 and 16, and add new claims 21-22. No new matter is believed to be introduced by the aforementioned amendments and new claims. The following listing of claims will replace all prior versions and listings of claims in the application.

1. **(Currently amended)** An optical transceiver module, comprising:

a transceiver housing;

a plurality of components disposed at least partially within said transceiver housing, said components including:

an optical transmitter; and

an optical receiver;

a power controller integrated circuit (IC) electrically coupled to at least one of said plurality of components, where said power controller IC is configured to perform power supply functions for said optical transceiver module and said power controller IC includes multiple voltage regulators configured and arranged to provide power to said components at two or more voltages; [[and]]

a main controller integrated circuit (IC) positioned within the transceiver housing and electrically coupled to said optical transmitter, said optical receiver and said power controller IC;

a host serial interface coupled directly to the main controller IC, the host serial interface including both clock line and data line interfaces configured to enable communication between the host serial interface and an external host; and

an internal serial bus to which the main controller IC and the power controller IC are connected in parallel.

2. **(Original)** The optical transceiver module of claim 1, wherein at least one of said multiple voltage regulators is a low drop-out voltage regulator configured to receive an unregulated input voltage and configured to supply a regulated output voltage to at least one of said elements.

3. **(Original)** The optical transceiver module of claim 1, wherein at least one of said multiple voltage regulators is a boost or buck regulator electrically coupled to at least one of said components.

4. **(Previously Presented)** The optical transceiver module of claim 1, wherein said power controller IC further includes a serial bus within said power controller IC.

5. **(Currently amended)** The optical transceiver module of claim [[1]] 4, wherein said multiple voltage regulators are electrically coupled to said serial bus.

6. **(Original)** The optical transceiver module of claim 5, wherein said power controller IC further comprises a serial interface electrically coupled to said serial bus.

7. **(Canceled)**

8. **(Original)** The optical transceiver module of claim 5, wherein said voltage regulators are individually addressable.

9. **(Original)** The optical transceiver module of claim 1, wherein at least one of said voltage regulators includes an Avalanche Photo Diode (APD) voltage supply.

10. **(Original)** The optical transceiver module of claim 1, wherein at least one of said voltage regulators is adjustable.

11. **(Original)** The optical transceiver module of claim 1, wherein said power controller IC further includes a plurality of components selected from a group consisting of: an analog to digital converter, a temperature sensor, a digital to analog converter, a logic module, an inrush current limiter, and a processor management module.

12. **(Original)** The optical transceiver module of claim 1, wherein said components further include a laser driver IC electrically coupled to said optical transmitter, and a post-amplifier IC electrically coupled to said optical receiver.

13. **(Canceled)**

14. **(Previously Presented)** The optical transceiver module of claim 1, wherein said power controller IC is responsive to signals from said main controller.

15. **(Previously Presented)** The optical transceiver module of claim 1, further comprising an internal serial bus to which the power controller IC and main controller IC are connected in parallel, and the internal serial bus being connected to the optical transmitter and to the optical receiver.

16. **(Currently amended)** An optical transceiver module, comprising:

a transceiver housing;

an optical transmitter and an optical receiver disposed within the transceiver housing;

a plurality of addressable components;

a power controller integrated circuit **(IC)** including a plurality of adjustable power supplies, the optical transmitter, the optical receiver, and one of the plurality of addressable components each being electrically coupled to an adjustable power supply;

a main controller integrated circuit (IC) electrically coupled to the optical transmitter, the optical receiver and the power controller IC; and

an internal serial bus to which the power controller IC and the main controller IC are connected in parallel, [[and]] the internal serial bus being connected to the optical transmitter, the optical receiver, and an addressable component, and the main controller IC serves as a serial bus master for the internal serial bus.

17. **(Previously Presented)** The optical transceiver module as recited in claim 16, wherein each of the addressable components comprises: a serial interface configured for communication with the internal serial bus; and, a memory.

18. **(Previously Presented)** The optical transceiver module as recited in claim 16, wherein the power controller IC comprises an addressable power controller IC.

19. **(Previously Presented)** The optical transceiver module as recited in claim 16, wherein the plurality of addressable components comprises one or more of the following: a laser driver; a laser bias controller; a pre-amplifier; a post-amplifier; a laser wavelength controller; a thermoelectric controller; an analog-to-digital converter; a digital-to-analog converter; and, an APD bias controller.

20. **(Previously Presented)** The optical transceiver module as recited in claim 16, wherein the power controller IC further comprises a serial bus to which the adjustable power supplies are coupled, and the power controller IC further comprising:

a configurable logic module connected to the serial bus; and

a processor management module connected to the serial bus.

21. **(New)** The optical transceiver module as recited in claim 16, further comprising a plurality of dedicated chip select lines, each of the dedicated chip select lines connecting a corresponding addressable component to the main controller IC.

22. **(New)** The optical transceiver module as recited in claim 4, wherein the power controller IC further comprises the following components, each of which is electrically connected to the serial bus within the power controller IC:

a configurable logic module;

a processor management module;

a serial interface;

an analog-to-digital converter;

a digital-to-analog converter; and

an inrush current limiter.